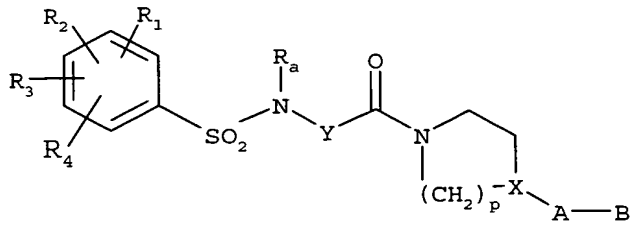
CLAIMS

1. A benzenesulphonamide derivative compound, characterized in that it is selected from the group consisting of:

a) compounds of formula:



I

in which

- R_1, R_2, R_3, R_4 each independently represent one or more atoms or groups of atoms selected from a hydrogen atom, the halogens, C_1-C_3 alkyl groups, or C_1-C_3 alkoxy groups, CF_3 or OCF_3 groups,
- R_a represents a C_1-C_4 alkyl group,
- Y represents a saturated C_2-C_5 alkylene group, optionally interrupted by an oxygen atom, an unsaturated C_2-C_4 alkylene group, or a $-CH_2$-CO-NH-CH_2- group,
- X represents CH or a nitrogen atom,
- p represents 2 or 3,
- A represents a single bond, a nitrogen atom optionally substituted with a methyl group, or a straight or branched C_1-C_5 alkylene group optionally hydroxylated or of which one of the carbon atoms is oxidized into a ketone function, provided that A and X together do not represent a nitrogen atom,
- B represents a nitrogen-containing heterocycle or an amine group optionally substituted with one or two C_1-C_4 alkyl groups,

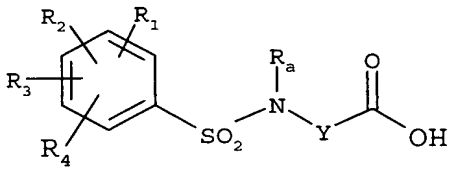
b) addition salts of the above formula I compounds with an acid.

2. A compound according to claim 1, characterized in that Y represents a C_3-C_5 alkylene group interrupted by an oxygen atom, preferably a $-CH_2$-CH_2-O-CH_2- group.

3. A compound according to claim 1 or 2, characterized in that R_2 and R_3 represent a methyl group at position 2,6 on the aromatic ring.

4. A method for preparing a formula I compound as defined in claim 1, and its addition salts, comprising the steps consisting of:

a) allowing an acid of formula:



II

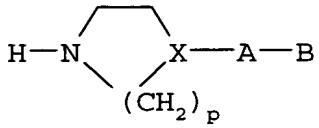
in which

R_1, R_2, R_3 and R_4 each independently represent a hydrogen or halogen atom, a C_1-C_3 alkyl group, or a C_1-C_3 alkoxy group, CF_3 or OCF_3 group,

R_a represents a C_1-C_4 alkyl group,

Y represents a saturated C_2-C_5 alkylene group, optionally interrupted by an oxygen atom, an unsaturated C_2-C_4 alkylene group, or a $-CH_2$-CO-NH-CH_2- group,

to react with a nitrogen-containing heterocycle of formula:



III

in which

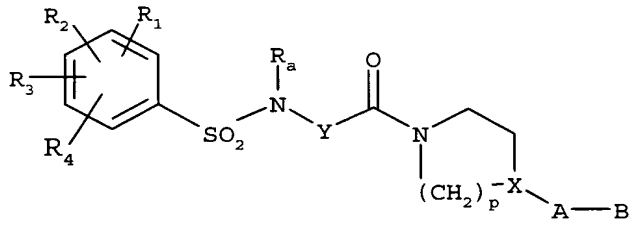
X represents CH or a nitrogen atom,

p represents 2 or 3,

A represents a single bond, a nitrogen atom optionally substituted with a methyl group (if X does not represent a nitrogen atom), or a straight or branched C_1-C_5 alkylene group, optionally hydroxylated or of which one of the carbon atoms is oxidized into a ketone function,

B represents a nitrogen-containing heterocycle or an amine group optionally substituted with one or two C_1-C_4 alkyl groups, on the understanding that, should a non-substituted nitrogen atom be present, this nitrogen atom is protected by an amino-protecting group,

in a solvent, in the presence of activators, at a temperature lying between ambient temperature and the boiling point of the solvent, for approximately 2 to 15 hours, to obtain the amide of formula:



I

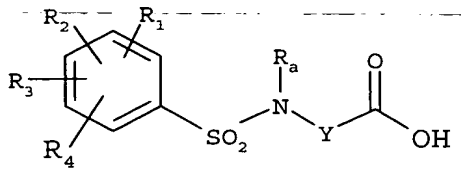
in which R_1, R_2, R_3, R_4, R_a, Y, p, X, A and B maintain the same meaning as in the starting products,

b) if necessary, removing the amino-protecting groups,

c) if necessary, obtaining an addition salt of the formula I compound with a mineral or organic acid.

5. A method for preparing a formula I compound as defined in claim 1, and its addition salts, comprising the steps consisting of:

a) allowing an acid of formula:



II

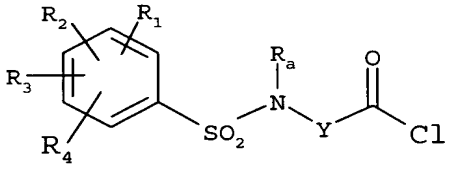
in which

R_1, R_2, R_3 and R_4 each independently represent a hydrogen or halogen atom, a C_1-C_3 alkyl group, or a C_1-C_3 alkoxy group, CF_3 or OCF_3 group,

R_a represents a C_1-C_4 alkyl group,

Y represents a saturated C_2-C_5 alkylene group, optionally interrupted by an oxygen atom, an unsaturated C_2-C_4 alkylene group, or a $-CH_2$-CO-NH-CH_2- group,

to react with a chlorination agent, to obtain the acid chloride of formula:



IIa

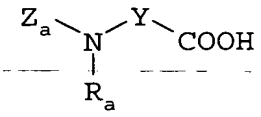
in which R_1, R_2, R_3, R_4, R_a and Y have the same meaning as in the starting compound,

b) allowing the acid chloride of formula IIa to react with an amine of formula III as defined in claim 4, to obtain the compound of formula I,

c) if necessary, obtaining an addition salt of the formula I compound with a mineral or organic acid.

6. A method for preparing a formula I compound such as defined in claim 1, and its addition salts, comprising the steps consisting of:

a) allowing an acid compound of formula:

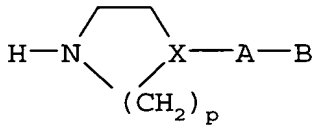


VII

in which Ra represents a C_1-C_4 alkyl group,

Y represents a saturated C_2-C_5 alkylene group, optionally interrupted by an oxygen atom, and Z_a represents an amino-protecting group,

to react with a nitrogen-containing heterocycle of formula:



III

in which

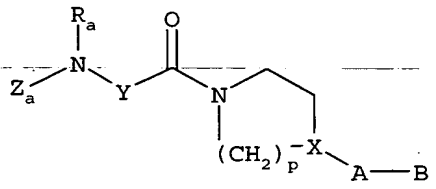
X represents CH or a nitrogen atom,

p represents 2 or 3,

A represents a single bond, a nitrogen atom optionally substituted with a methyl group (if X does not also represent a nitrogen atom) or a straight or branched C_1-C_5 alkylene group, optionally hydroxylated or of which one of the carbon atoms is oxidized into a ketone function,

B represents a nitrogen-containing heterocycle or an amine group optionally substituted with one or two C_1-C_4 alkyl groups, on the understanding that, should a non-substituted nitrogen atom be present on said nitrogen-containing heterocycle, this nitrogen atom is protected by a different amino-protecting group to the amino-protecting group used for acid compound VII,

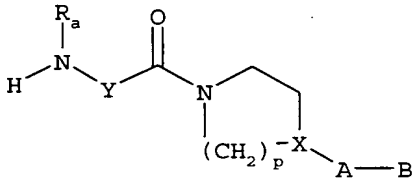
in a solvent, in the presence of activators, at a temperature generally lying between ambient temperature and the boiling point of the solvent, for approximately 2 to 15 hours, to obtain the amide of formula:



VIII

in which Z_a, R_a, Y, p, X, A and B maintain the same meaning as in the starting compounds,

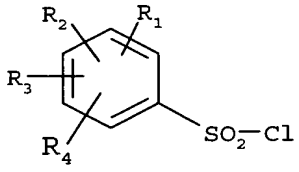
b) removing the Z_a amino-protecting group to obtain the secondary amine of formula:



IX

in which R_a, Y, p, X, A and B maintain the same meaning as in the preceding compound,

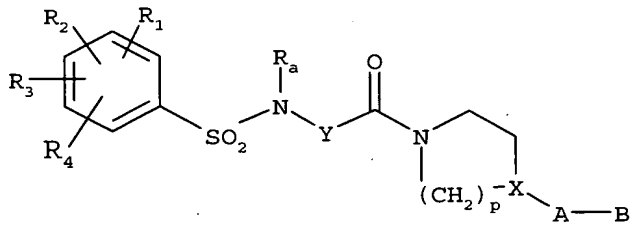
c) allowing this secondary amine IX to react with a benzenesulphonyl chloride of formula:



IV

in which R_1, R_2, R_3 and R_4 each independently represent a hydrogen or halogen atom, a C_1-C_3 alkyl group, or a C_1-C_3 alkoxy group, CF_3 or OCF_3 group,

in a solvent, in the presence of an aprotic organic base, at a temperature between approximately 0 and 50°C, for approximately 1 to 3 hours, to obtain the sulphonamide of formula:



I

in which R_1, R_2, R_3, R_4, R_a, Y, p, X, A and B maintain the same meaning as in the starting compounds,

d) if necessary, removing the amino-protecting groups,

e) if necessary, obtaining an addition salt of the formula I compound with a mineral or organic acid.

7. A therapeutic composition, characterized in that, in association with at least one physiologically acceptable excipient, it contains at least one formula I compound according to any of claims 1 to 3, or one of its pharmaceutically acceptable addition salts with an acid.

8. Use of a formula I compound according to any of claims 1 to 3, or of one of its pharmaceutically acceptable addition salts with an acid, for the preparation of a medicinal product intended to treat pain.

9. Use of a formula I compound according to any of claims 1 to 3, or of one of its pharmaceutically acceptable addition salts with an acid, for the preparation of a medicinal product intended to treat inflammatory diseases.